

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=6; day=11; hr=11; min=9; sec=24; ms=773; ]

=====

Application No: 10549241

Version No: 2.0

**Input Set:****Output Set:****Started:** 2009-06-03 13:38:09.805**Finished:** 2009-06-03 13:38:17.761**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 956 ms**Total Warnings:** 34**Total Errors:** 0**No. of SeqIDs Defined:** 41**Actual SeqID Count:** 41

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)
W 213	Artificial or Unknown found in <213> in SEQ ID (21)
W 213	Artificial or Unknown found in <213> in SEQ ID (22)
W 213	Artificial or Unknown found in <213> in SEQ ID (23)
W 213	Artificial or Unknown found in <213> in SEQ ID (24)
W 213	Artificial or Unknown found in <213> in SEQ ID (25)
W 213	Artificial or Unknown found in <213> in SEQ ID (26)

**Input Set:**

**Output Set:**

**Started:** 2009-06-03 13:38:09.805  
**Finished:** 2009-06-03 13:38:17.761  
**Elapsed:** 0 hr(s) 0 min(s) 7 sec(s) 956 ms  
**Total Warnings:** 34  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 41  
**Actual SeqID Count:** 41

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> Ferrara, N.  
Le Couter, J.

<120> COMPOSITIONS WITH HEMATOPOIETIC AND  
IMMUNE ACTIVITY

<130> 12279-424-999

<140> 10549241

<141> 2006-06-12

<150> 60/511,390

<151> 2003-10-14

<150> 60/454,462

<151> 2003-03-12

<160> 41

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 427

<212> DNA

<213> Artificial Sequence

<220>

<223> cDNA encoding a human Bv8 homologue

<400> 1

```
tgagggcgcc atgaggagcc tgtgctgcgc ccactcctg ctctctttgc tgetgccgcc 60
gctgctgctc acgccccgcg ctggggacgc cgccgtgatc accggggcctt gtgacaagga 120
ctcccaatgt ggtggaggca tgtgctgtgc tgcagtatc tgggtcaaga gcataaggat 180
ttgcacacct atgggcaaac tgggagacag ctgccatcca ctgactcgta aaaacaattt 240
tggaaatgga aggcaggaaa gaagaaagag gaagagaagc aaaaggaaaa aggaggttcc 300
attttttggg cggaggatgc atcacacttg cccatgtctg ccaggcttgg cctgtttacg 360
gacttcattt aaccgattta tttgttttagc ccaaaagtaa tcgctctgga gtagaaacca 420
aatgtga                                           427
```

<210> 2

<211> 129

<212> PRT

<213> Homo sapiens

<220>

<223> human Bv8 homologue

<400> 2

```
Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro
 1              5              10              15
Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly
      20              25              30
Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val
```

35	40	45
Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys Leu		
50	55	60
Gly Asp Ser Cys His Pro Leu Thr Arg Lys Asn Asn Phe Gly Asn Gly		
65	70	75
Arg Gln Glu Arg Arg Lys Arg Lys Arg Ser Lys Arg Lys Lys Glu Val		80
85	90	95
Pro Phe Phe Gly Arg Arg Met His His Thr Cys Pro Cys Leu Pro Gly		
100	105	110
Leu Ala Cys Leu Arg Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln		
115	120	125
Lys		

<210> 3  
 <211> 423  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> cDNA encoding human Bv8 homologue

<400> 3  
 tgaggggcgcc atgaggagcc tgtgctgcgc ccaactcctg ctctctttgc tgctgccgcc 60  
 gagggcgcca tgaggagcct gtgctgcgcc ccaactcctgc tcctctttgct gctgccgccg 120  
 ctgctgctca cgcgccgcgc tggggacgcc gccgtgatca ccggggccttg tgacaaggac 180  
 tcccaatgtg gtggaggcat gtgctgtgct gtcagtatct gggcaagag cataaggatt 240  
 tgcacaccta tgggcaaaact gggagacagc tgccatccac tgactcgtaa agttccattt 300  
 tttgggcgga ggatgcatca cacttgccca tgtctgccag gcttggcctg tttacggact 360  
 tcatttaacc gatttatttg tttagcccaa aagtaatcgc tctggagtag aaaccaaagt 420  
 tga 423

<210> 4  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <223> human Bv8 homologue

<400> 4  
 Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro  
 1 5 10 15  
 Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly  
 20 25 30  
 Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val  
 35 40 45  
 Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys Leu  
 50 55 60  
 Gly Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Phe Gly Arg  
 65 70 75 80  
 Arg Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu Arg  
 85 90 95  
 Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln Lys  
 100 105

<210> 5  
<211> 1338  
<212> DNA  
<213> Mus musculus

<220>  
<223> mouse Bv8 homologue

<400> 5  
cggacgcgtg ggcgtcccct aaccgccacc gcgtccccgg gacgccatgg gggacccgcg 60  
ctgtgccccg ctactgctac ttctgctgct accgctgctg ttcacaccgc ccgccgggga 120  
tgccgcggtc atcaccgggg cttgcgacaa ggactctcag tgcggaggag gcatgtgctg 180  
tgctgtcagt atctgggtta agagcataag gatctgcaca cctatgggcc aagtgggcga 240  
cagctgccac cccctgactc ggaaagtctc attttggggg cggaggatgc accacacctg 300  
cccctgcctg ccaggcttgg cgtgtttaag gacttctttc aaccggttta tttgcttggc 360  
ccggaaatga tcaactctgaa gtaggaactt gaaatgcgac cctccgctgc acaatgtccg 420  
tcgagtctca cttgtaattg tggcaaacaa agaatactcc agaaagaaat gttctcccc 480  
ttccttgact ttccaagtaa cgtttctatc tttgattttt gaagtggctt tttttttttt 540  
ttttttttcc tttccttgaa ggaaagtttt gatttttgga gagatttata gaggactttc 600  
tgacatggct tctcatttcc ctgtttatgt tttgccttga catttttgaa tgccaataac 660  
aactgttttc acaaatagga gaataagagg gaacaatctg ttgcagaaac ttccttttgc 720  
cctttgcccc actcgccccg ccccgccccg ccccgccctg cccatgcgca gacagacaca 780  
ccettactct tcaaagactc tgatgatect caccttactg tagcattgtg ggtttctaca 840  
cttccccgcc ttgctgggtg acccactgag gaggtcaga gagctagcac tgtacaggtt 900  
tgaaccagat cccccaagca gctcatttgg ggagacgtt gggagcgctc caggaaactt 960  
cctgcacca tctggcccac tggttttcag ttctgctgtt taactggtgg gaggacaaaa 1020  
ttaacgggac cctgaaggaa cctggcccgt ttatctagat ttgtttaagt aaaagacatt 1080  
ttctccttgt tgtggaatat tacatgtctt tttctttttt atctgaagct tttttttttt 1140  
ttctttaagt cttcttgttg gagacatttt aaagaacgcc actcgaggaa gcattgattt 1200  
tcatytggca tgacaggagt catcatttta aaaaatcggg gttaagttat aatttaaact 1260  
ttatttgtaa cccaaaggty taatgtaa at ggatttctctg atatcctgcc atttgtactg 1320  
gtatcaatat ttytatgt 1338

<210> 6  
<211> 107  
<212> PRT  
<213> Mus musculus

<220>  
<223> mouse Bv8 homologue

<400> 6  
Met Gly Asp Pro Arg Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro  
1 5 10 15  
Leu Leu Phe Thr Pro Pro Ala Gly Asp Ala Ala Val Ile Thr Gly Ala  
20 25 30  
Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val Ser  
35 40 45  
Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Gln Val Gly  
50 55 60  
Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Trp Gly Arg Arg  
65 70 75 80  
Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu Arg Thr  
85 90 95  
Ser Phe Asn Arg Phe Ile Cys Leu Ala Arg Lys  
100 105

<210> 7  
<211> 1415  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> cDNA encoding human native EG-VEGF

<400> 7  
tggcctcccc agcttgccag gcacaaggct gagcgggagg aagcgagagg catctaagca 60  
ggcagtggtt tgccttcacc ccaagtgacc atgagaggtg ccacgcgagt ctcaatcatg 120  
ctcctcctag taactgtgtc tgactgtgct gtgatcacag gggcctgtga gcgggatgtc 180  
cagtgtgggg caggcacctg ctgtgccatc agcctgtggc ttcgagggct gcggatgtgc 240  
accccgctgg ggcggaagg cgaggagtgc caccgcggca gccacaaggc ccccttcttc 300  
aggaaacgca agcaccacac ctgtccttgc ttgcccacac tgctgtgtc cagggttcccg 360  
gacggcaggt accgctgctc catggacttg aagaacatca atttttaggc gcttgcttgg 420  
tctcaggata ccaccatcc ttttctgag cacagcctgg atttttatct ctgccatgaa 480  
accagctcc catgactctc ccagtcccta cactgactac cctgatctct cttgtctagt 540  
acgcacatat gcacacaggc agacatacct cccatcatga catggtcccc aggctggcct 600  
gaggatgtca cagcttgagg ctgtggtgtg aaaggtggcc agcctggttc tcttcctgc 660  
tcaggctgcc agagaggtgg taaatggcag aaaggacatt cccctcccc tcccaggtg 720  
acctgctctc tttcctgggc cctgcccctc tcccacatg tatccctcgg tctgaattag 780  
acattcctgg gcacaggctc ttgggtgcat tgctcagagt cccaggtcct ggctgaccc 840  
tcaggccctt cacgtgaggt ctgtgaggac caatttgtgg gtagttcatc ttccctcgat 900  
tggttaactc cttagtttca gaccacagac tcaagattgg ctcttcccag agggcagcag 960  
acagtcaccc caaggcaggt gtagggagcc cagggaggcc aatcagcccc ctgaagactc 1020  
tggtcccagt cagcctgtgg cttgtggcct gtgacctgtg accttctgcc agaattgtca 1080  
tgctctgag gccccctctt accacacttt accagttaac cactgaagcc cccaattccc 1140  
acagcttttc cattaaaatg caaatggtgg tggttcaatc taatctgata ttgacatatt 1200  
agaaggcaat taggggtgtt ccttaaaca ctcctttcca aggatcagcc ctgagagcag 1260  
gttggtgact ttgaggagg cagtcctctg tccagattgg ggtgggagca agggacaggg 1320  
agcagggcag gggctgaaag gggcactgat tcagaccagg gaggcaacta cacaccaaca 1380  
tgctggcttt agaataaaag caccaactga aaaaa 1415

<210> 8  
<211> 105  
<212> PRT  
<213> Homo sapiens

<220>  
<223> human native EG-VEGF popypeptide sequence

<400> 8  
Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr Val  
1 5 10 15  
Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val Gln Cys  
20 25 30  
Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg  
35 40 45  
Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Cys His Pro Gly Ser  
50 55 60  
His Lys Val Pro Phe Phe Arg Lys Arg Lys His His Thr Cys Pro Cys  
65 70 75 80  
Leu Pro Asn Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys  
85 90 95

Ser Met Asp Leu Lys Asn Ile Asn Phe  
100 105

<210> 9

<211> 757

<212> DNA

<213> Artificial Sequence

<220>

<223> cDNA encoding native mouse EG-VEGF

<400> 9

gaagtgaggg gtaccaaagt agactgtggt tgtcgtcacc tcaagtgatc atgagaggcg 60  
ctgtgcatat cttcatcatg ctctttctag caacggcgtc cgactgtgcg gtcatcacag 120  
gggcctgtga acgagatatc cagtgtgggg ccggcacctg ctgcgctatc agtctgtggc 180  
tgcggggcct gcgggttgtgt accccactgg ggcgtgaagg agaggagtgc caccagga 240  
gccacaagat ccccttcttg aggaaacgcc aacaccatac ctgtccctgc tcaccagcc 300  
tgetgtgctc caggttcccg gacggcaggt accgctgctt ccgggacttg aagaataact 360  
tttagtttgt ctggactctg tctggagcct gactgggtga cctcttgctt tacacctgtg 420  
tgatttagct ccttgcaact tgcgcattcc ccatcttgtc cgtgtatgtg cagacaggca 480  
gaccttccgc tatggaatag ttcaccaggg tgacagagg agttcgtggc cttgagaagt 540  
tgccagccc gaccttctg gctcagactg cctgaagttg tgacagtgtg ggccttctca 600  
gttgctgcc ccttctgca tgtgcgcttc ttcctaaacc acaccttctt gggcactggc 660  
ccatggatgc accactaaat caacaggtct gtggggtgga tgatcaactt tctctccatt 720  
tttcttttat tgactggctt cctaatttaa ggactgt 757

<210> 10

<211> 105

<212> PRT

<213> Mus musculus

<220>

<223> EG-VEGF polypeptide sequence

<400> 10

Met Arg Gly Ala Val His Ile Phe Ile Met Leu Leu Leu Ala Thr Ala  
1 5 10 15  
Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Ile Gln Cys  
20 25 30  
Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg  
35 40 45  
Leu Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys His Pro Gly Ser  
50 55 60  
His Lys Ile Pro Phe Leu Arg Lys Arg Gln His His Thr Cys Pro Cys  
65 70 75 80  
Ser Pro Ser Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys  
85 90 95  
Phe Arg Asp Leu Lys Asn Ala Asn Phe  
100 105

<210> 11

<211> 20

<212> DNA

<213> Artificial Sequence



<220>  
 <223> PCR primer  
  
 <400> 11  
 tgggctacac tgagcaccag 20  
  
 <210> 12  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 12  
 cagcgtcaaa ggtggaggag 20  
  
 <210> 13  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Probe  
  
 <400> 13  
 tgggtctctc tgacttcaac agcgacac 28  
  
 <210> 14  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 14  
 ccattttttg ggcggagg 18  
  
 <210> 15  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 15  
 ccgtaaacag gccaacct 19  
  
 <210> 16  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Probe

<400> 16	
tgcacacac ttgcccatgt ctgc	24
<210> 17	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 17	
ccggcagcca caaggtc	17
<210> 18	
<211> 18	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 18	
tgggcaagca aggacagg	18
<210> 19	
<211> 26	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> probe	
<400> 19	
ccttcttcag gaaacgcaag caccac	26
<210> 20	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 20	
ggcgcccttc tacggct	17
<210> 21	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 21	

tctccttcac gaacacggtg 20

<210> 22  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Probe

<400> 22  
caccatcgtg cgcgacttct tcc 23

<210> 23  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer

<400> 23  
ggaaatgaca tctgtgttca tgc 23

<210> 24  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer

<400> 24  
tcattgtatg ttacgacttt gcagc 25

<210> 25  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> probe

<400> 25  
cccgtgccct caagaagccg a 21

<210> 26  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer

<400> 26  
atgttccagt atgactccac tcacg 25

<210> 27	
<211> 25	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 27	
gaagacacca gtagactcca cgaca	25
<210> 28	
<211> 29	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> probe	
<400> 28	
aagcccatca ccattctcca ggagcgaga	29
<210> 29	
<211> 18	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 29	
cggaggatgc accacacc	18
<210> 30	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 30	
cgggttgaaa gaagtcctta aaca	24
<210> 31	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> probe	
<400> 31	
cccctgcctg ccaggcttgg	20
<210> 32	
<211> 20	

<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 32	
tgaggaaacg ccaacaccat	20
<210> 33	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 33	
cggggaacct ggagcac	17
<210> 34	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 34	
cctgtccctg ctcacccagc ctg	23
<210> 35	
<211> 19	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 35	
cagcgcacat gaagacttg	19
<210> 36	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
<400> 36	
gtcatcttcg gtttcctgag t	21
<210> 37	
<211> 20	
<212> DNA	
<213> Artificial Sequence	

<220>  
 <223> Probe  
  
 <400> 37  
 tccaggcagc acccctgatg 20  
  
 <210> 38  
 <211> 18  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 38  
 gaactccacg tgagcgca 18  
  
 <210> 39  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 39  
 ggggtcccatg ttgatgatgc t 21  
  
 <210> 40  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> probe  
  
 <400> 40  
 ctcctgata cacaccagcc cacctg 26  
  
 <210> 41  
 <211> 128  
 <212> PRT  
 <213> Mus musculus  
  
 <220>  
 <223> Mouse Bv8 homologue  
  
 <400> 41  
 Met Gly Asp Pro Arg Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro  
 1 5 10 15  
 Leu Leu Phe Thr Pro Pro Ala Gly Asp Ala Ala Val Ile Thr Gly Ala  
 20 25 30  
 Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val Ser

35					40					45					
Ile	Trp	Val	Lys	Ser	Ile	Arg	Ile	Cys	Thr	Pro	Met	Gly	Gln	Val	Gly
50					55					60					
Asp	Ser	Cys	His	Pro	Leu	Thr	Arg	Lys	Ser	His	Val	Ala	Asn	Gly	Arg
65					70					75					80
Gln	Glu	Arg	Arg	Arg	Ala	Lys	Arg	Arg	Lys	Arg	Lys	Lys	Glu	Val	Pro
85					90					95					
Phe	Trp	Gly	Arg	Arg	Met	His	His	Thr	Cys	Pro	Cys	Leu	Pro	Gly	Leu
100					105					110					
Ala	Cys	Leu	Arg	Thr	Ser	Phe	Asn	Arg	Phe	Ile	Cys	Leu	Ala	Arg	Lys
115					120					125					